ABSTRACT OF THE DISCLOSURE

A digitizing pen has a pen body with a writing tip for handwriting on a sheet of paper. An optical sensor disposed in the pen body images a writing surface of the sheet of paper. A tag-recognition reader is connected to the optical sensor, and gathers location information from data encoded on at least one tag positioned on the writing surface. A velocity reader is connected to the optical sensor, and gathers speed and relative direction information of the writing tip over the writing surface. A processor connected to receive the tag location, writing-tip speed, and writing-tip relative direction information, can then compute a series of locations on the writing surface visited by the writing tip.